

1.5.4 Average Annual Carbon Dioxide Emissions for Various Functions

	Annual Unit Energy Consumption	Carbon Emissions	
		(MMT CO ₂)	(lb CO ₂)
Stock Refrigerator	1,249 kWh - Electricity	0.80	1,800
Stock Electric Water Heater	2,549 kWh - Electricity	1.64	3,600
Stock Gas Water Heater	20 million Btu - Natural Gas	1.05	2,300
Stock Oil Water Heater	28 million Btu - Fuel Oil	2.07	4,500
Single-Family Home	107 million Btu	11.86	26,100
Mobile Home	76 million Btu	8.39	18,500
Multi-Family Unit in Large Building	41 million Btu	4.53	10,000
Multi-Family Unit in Small Building	78 million Btu	8.63	19,000
School Building	2,125 million Btu	269	593,300
Office Building	1,376 million Btu	174	384,200
Hospital, In-Patient	60,152 million Btu	7,617	16,794,600
Stock Vehicles			
Passenger Car	541 gallons - Gasoline	4.8	10,503
Van, Pickup Truck, or SUV	686 gallons - Gasoline	6.0	13,324
Heavy Truck	1,414 gallons - Diesel Fuel	12.8	28,334
Tractor Trailer Truck	11,697 gallons - Diesel Fuel	106.3	234,391

Source(s): EIA, Annual Energy Outlook 2008, Mar. 2008, Table A2, p. 117-119 for consumption and Table A18, p. 144 for emissions, and Table G1, p. 215 for gasoline heat rate; EIA, A Look at Residential Energy Consumption in 2001, May 2004, Table CE4-1c for water heater energy consumption, Table HC5-1a for refrigerators and Table CE5-1c for refrigerator energy, and Table CE1-4c for household consumption; EIA, 2003 Commercial Buildings Energy Consumption Survey, June 2006, Table C3, p. 247 for commercial buildings; ORNL, Transportation Energy Data Book: Edition 26, 2007, Table 4.1, p. 4-2, Table 4.2, p. 4-3, Table 5.1, p. 5-2 and Table 5.2, p. 5-3 for vehicles; and EIA, Assumptions to the AEO 2008, June 2008, Table 2, p. 9 for carbon coefficients.